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Environmental Justice in Remediation: Tools for Community Empowerment

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Abstract

Exide Technologies finally closed its secondary lead-battery recycling plant on March 12, 2015. The community of primarily Hispanics around the facility had to fight many years to have the polluting facility shut down. Because government agencies, whose job is to protect citizens from polluters, were not regulating the facility properly, residents are not sure if they can trust the agencies to carry out remediation effectively and efficiently either. In this paper I explore the environmental justice issues associated with environmental remediation and what community members can do to make sure that their neighborhood is cleaned up properly. Through interviews with government agencies and environmental activists heavily involved in this case, I discovered that the main environmental justice issue in remediation is increased exposure to toxins. I argue that strong community activism and involvement are necessary for remediation to happen properly, and explore some tools that can be used in this process.

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Introduction

On March 12, 2015, Exide permanently closed its controversial battery-recycling plant in Vernon, California. Ever since its opening in September 2000, the plant's presence in the community of primarily Hispanics had sparked considerable debate. Dangerous amounts of toxic chemicals such as lead and arsenic had been illegally released into the environment numerous times. Although the population of Vernon, where Exide is located, is only around 110 people (US Census Bureau, 2014), the surrounding communities – East Los Angeles, Huntington Park, Maywood, City of Commerce, and Bell (which I will call eastern Los Angeles collectively) – are equally affected by the facility's toxic emissions. Community members of eastern Los Angeles, environmental advocates, and some government officials have been fighting to close the plant for many years (Barboza, March 15 2015).

The California Department of Toxic Substances Control (DTSC), the state's regulatory agency with oversight over companies that produce toxic waste, has been aware of Exide's illegal activities. Yet, DTSC never took strict actions beyond issuing fines and demanding temporary closures. In other words, the regulators, whose job is to protect citizen's health, "knew for years that Exide was violating environmental laws by spewing contaminants into the air, soil, and water, but only recently began taking steps to stop it" (Barboza, March 15 2015). The communities surrounding Exide are primarily Hispanic; according to the US census data, over 97 per cent of the residents in Huntington Park and Maywood are Hispanic (US Census Bureau, 2014). Because of this, community members have been claiming that Exide and the

government officials' actions – and inactions – are a manifestation of environmental injustice and racism. Pulido (2015) says that Exide may be treating its neighbors badly because they see them as "inferior and not worthy of full consideration" (p. 6). She says that the residents' low social status owing to them being Latina/o, low-income, and mostly immigrants is the primary reason why they are seen as inferior. State Assembly Speaker John A. Perez, in whose district Vernon, Huntington Park, and Boyle Heights were located, also commented that the lack of action by DTSC was an "inexcusable oversight on the part of the department," and lamented that:

> All too often we see situations like this, with facilities out of compliance, relying on outdated permits, guilty of numerous violations allowed to continue to operate in communities that bear a disproportionate pollution burden. Often these are communities of color, with a lower socio-economic status, having little capacity to address these challenges (Garrison, April 25 2013).

Although the plant has closed, various issues remain: Exide must decontaminate those parcels of land that have high levels of lead and arsenic. However, because government agencies had not been regulating Exide responsibly, community members are worried that DTSC will also fail to oversee the remediation process properly, allowing Exide to avoid paying some or all of the clean up costs. Mark Lopez, the director of East Yard Communities for Environmental Justice, said

in an interview: “we hope the next battle is not having to fight DTSC for the cleanup” (Barboza, August 19 2015). The director of DTSC, Barbara Lee, has admitted that the agency has failed to act in the past and has been working hard to change its internal system to gain trust from community members. Lee said in a statement that “DTSC will use every tool and legal mechanism at its disposal to ensure that Exide’s remaining resources are used to properly close the facility and clean up contamination in the residential area” (Barboza and Vives, March 12 2015)

How exactly will remediation be carried out, though? What groups and individuals will be at the table negotiating the remediation processes? How can community members ensure that remediation will happen in a fair way? Interviews with key activists and agencies involved in this case have revealed that there is an ongoing environmental justice issue in the remediation process: increased exposure to toxics. By examining other cases that dealt with environmental justice issues in the remediation process, I will argue that strong community activism is the most effective strategy for success. I will also discuss some of the tools and methods available to community members to carry remediation out in a just and equitable fashion. The first chapter of the thesis will introduce the concept of environmental justice in the US and in California, reasons why injustice happens in certain communities, and some key policies that exist to protect citizens from such injustices. I will also discuss some general environmental justice issues that arise in the remediation process. The second chapter will look at the history of environmental justice concerns in East Los Angeles: why have environmental justice issues arisen in this community? How have community members responded in the past to environmental degradation of their

neighborhoods? It will also discuss the history of Exide and its Vernon facility to introduce some of the key challenges for a fair remediation, such as unresponsive agencies and slow progress. The third chapter will look at several case studies – the Stringfellow Acid Pits in Glen Avon, California, Price Pfister Faucets facility in Pacoima, California, and the Exide Plant in Frisco, Texas – to discuss the kinds of tools that communities and organizations have used in the past to carry out an environmentally fair remediation process. Lastly, I will focus on Vernon's Exide Plant to introduce some environmental justice issues that have arisen in the remediation process. I will also examine the tools and strategies that communities can use to combat them, using the cases that were discussed in Section 3 as well as Saul Alinsky's "rules for radicals." The purpose of this thesis is to provide suggestions on how communities can organize themselves to carry out an environmentally sound and fair remediation by using Vernon's Exide Plant as an example.

I. What is Environmental Justice?

1. Environmental Justice in the United States

A. Definition of Environmental Justice

There are various popular definitions of environmental justice or environmental discrimination. EPA defines environmental justice as follows:

> "The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (Environmental Protection Agency [EPA], 2015).

According to Robert Bullard, who is one of the most influential academics in the field of environmental justice, environmental discrimination is the "disparate treatment of a group or community based on race, class, or some other distinguishing characteristic" (Bullard, 2000, p.7). One specific type of environmental discrimination is environmental racism, which, according to Benjamin Chavis who coined the term in 1982, means

> "racial discrimination in environmental policy-making and enforcement of regulations and laws, the deliberate targeting of communities of color for toxic waste facilities, the official sanctioning of the presence of life threatening poisons and pollutants in communities of color, and the history of excluding people of color from leadership of the environmental movement"

(Cutter, 2006, p. 251)

Although the vocabularies that are being used are different, the idea behind environmental justice that these definitions share is that disproportionate burdens need to be equalized and the communities need to participate more in decision-making processes. Susan Cutter (2006) states that environmental equity derives from three sources of "dissimilarity": social, generational, and procedural. Social equity refers to the degree to which economic and social power such as race, class, origin, and political clout determine the amount of environmental degradation or resource distribution in a community. Generational equity is a framework of policies to make sure that current generations do not offload environmental burdens to future generations. Procedural equity is the extent to which the government imposes regulations and treaties in a non-discriminatory way (Cutter, 2006). According to Binder et al. (2001), environmental injustice can play out in various ways, such as the location of hazardous facilities in low-income minority communities, fewer health services to certain communities, or the lack of regulatory enforcement of hazardous activities.

B. Responses to Environmental Injustice

Environmental justice movements in the United States grew out of the civil rights movements of the 1960s. In the South, black people had been discriminated for a long time and were not given the political, economic, and social rights that whites had. They were often exposed to more hazardous chemicals than their white

counterparts. In the 1980s some blacks began to argue that environmental discrimination violated their civil rights (Bullard, 2000).

The case of Warren County in North Carolina is commonly said to be one of the origins of environmental-justice movement. Warren County is the poorest county in North Carolina, with blacks comprising 65 per cent of the population. Community members organized the Warren County Citizens Group in 1982 to protest against the creation of a landfill that stored soil contaminated by polychlorinated-biphenyl (PCBs). As a result of the protest, about 500 members were jailed (Bullard, 2000). Unfortunately, the landfill was created in the neighborhood, but citizens were also able to force the governor, who had initially refused to meet with the residents, to make some concessions to them; these included promising that no landfills will be made in Warren County in the future, and the state securing funding for well water quality monitoring (Geiser and Waneck, 1994). The movement also pushed the U.S. General Accounting Office to conduct the 1983 study, "Siting of Hazardous Waste Landfills and Their Correlation with Racial and Economic Status of Surrounding Communities" in eight southeastern states (King, 2001). The study specifically looked at off-site landfills that are not part of a hazardous facility. It found that three out of the four landfills were located in a primarily Black community. In addition, communities surrounding all four landfills had at least 26 per cent of the population below the poverty line (US General Accounting Office, 1983).

In 1987, the Commission for Racial Justice published the "Toxic Wastes and Race in the United States," which reported that race was often the main factor that determined the siting of a hazardous facility (King, 2001). This report revealed

the strong correlation between environmental justice issues and the civil rights agenda (Bullard, 2000). Many subsequent also reported that differences in regulatory enforcement depended on the demographics of the community. In 1990, the Congressional Black Caucus presented that environmental burden was disproportionately carried by minority and low-income communities to the EPA (EPA, 2015). In response to this, the EPA created the Environmental Equity Workgroup in July 1990 and published the report "Environmental Equity: Reducing Risk in All Communities" (EPA, 2015). The first National People of Color Environmental Leadership Summit, where many environmental justice activists gathered, was held in 1991 in the nation's capitol. This summit produced the "Principles of Environmental Justice," which demanded the right of people of color to participate in all levels of decision-making and articulated the right to a healthy environment (National People of Color Environmental Summit, 1991). The Clinton Administration developed the Office of Environmental Equity (later renamed the Office of Environmental Justice) in 1992 and two years later the EPA also created the National Environmental Justice Advisory Council (NEJAC) (Konisky, 2009). In the same year, the Center for Policy Alternatives published the report "Toxic Wastes and Race Revisited," which was an update of the "Toxic Wastes and Race in the United States" report created in 1987. This report revealed that environmental injustice issues had actually increased in the past decade despite elevated awareness (King, 2001; Bullard et al., 2007). One of the obstacles to resolving environmental justice issues was that although the federal government had some oversight on these matters, state and local governments were primarily in charge of hazardous waste facility siting and land-use management.

Therefore environmental justice policies were enforced mostly at the state and local-level (Gerber, 2002).

C. Civil Rights Act of 1967 and Executive Order 12898

In response to the need for federal environmental justice policies and pressure from environmental justice advocates, on February 11, 1994, President Bill Clinton signed Executive Order 12898, titled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." This Order reinforces Title VI of the 1964 Civil Rights Act, which states that programs and activities that receive federal funding must not discriminate people on the basis of race, color, and country of origin (US Department of Justice, 2015). In 1987 the Civil Rights Restoration Act amended Title VI to prohibit entire institutions – instead of just programs and activities – from discriminating people due to race, color, and origin (King, 2001).

Executive Order 12898 requires federal agencies to consider the negative effects that their actions might have on low-income minority population and to design "procedures that make achieving environmental justice part of their basic mission" (Gordon and Harley, 2005). An interagency working group, consisting of heads of various executive departments and federal agencies and led by EPA's administrator, guides federal agencies on the identification of environmental justice issues and the development of environmental justice strategies (Gerber, 2002). In a memorandum issued with the Executive Order, President Clinton especially emphasized the importance of addressing environmental justice concerns in the context of the

National Environmental Policy Act (NEPA) of 1969. He highlighted the need for public participation in the NEPA process and required agencies to improve the accessibility of meetings, notices, and documents (King, 2001).

2. Environmental Justice in California

California Environmental Protection Agency, commonly known as CalEPA, is the state cabinet-level agency that aims to "restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality" (CalEPA, 2015). It strives to achieve environmental justice, which it defines as the "fair treatment of people of all races, cultures and incomes with respect to the development, adoption, and implementation, and enforcement of environmental laws, regulations, and policies" under California Government Code 65040.12. California was the first state to codify the definition of Environmental Justice and has created several agencies to ensure that environmental justice considerations are always taken into account when developing policies and programs (Salazar-Thompson and Chiu, 2003). The Interagency Working Group (IWG) on Environmental Justice and the Advisory Committee on Environmental Justice are examples of such agencies.

California Environmental Quality Act (CEQA), which is California's environmental law, also states the need to consider the impacts on communities when carrying out a project. The law says that any project that "will cause substantial adverse effects on human beings, either directly or indirectly" will be considered to have a "significant effect on the environment and thereby require an EIR [Environmental Impact Report] to be prepared for the project" (Association of

Environmental Professionals, 2014). It requires agencies to analyze the impacts that programs and activities could have on communities (King, 2001). Despite this, many reports such as the EIR only mention the community's social and economic data to introduce the setting of the project and rarely discuss the impacts that it could have on the human environment (King, 2001). Analysts claim that this is because CEQA only looks at physical changes that occur in the environment (King, 2001). To address this problem, community and environmental organizations sought legislative change. However, Governor Pete Wilson vetoed some of the legislation, including SB1113 (1997), which would have amended the CEQA Guidelines and made agencies consider the effects that their projects could have on the local health and justice (King, 2001; Peter, 2010). In response to the lack of legislations on environmental justice, some local and regional agencies such as the South Coast Air Quality Management District and the City of Los Angeles have incorporated environmental justice into their operations. In 1999 Governor Gray Davis signed SB 115, which created the Governor's Office of Planning and Research (OPR). OPR "assists the Governor and the Administration in land use planning, research, liaison with local government, small business advocacy, rural policy, and various interagency taskforces" (Salazar-Thompson & Chiu, 2003), and in addition to CalEPA, has the responsibility to ensure that environmental justice programs are being implemented in all parts of the state. The OPR specifies that CalEPA must integrate environmental justice into its own and all of the sub-agencies' missions (Targ, 2005). The problem was that SB 115 "[lacked] specificity with respect to goals, objectives, strategy, measurable outcomes, and implementation, leaving tremendous discretion and political leadership to the

state's executive branch" (Targ, 2005, p. 177). Several statutes were enacted to clarify the goals of SB 115. Governor Davis signed SB 89 in 2000 that required the Secretary for Environmental Protection to form the Environmental Justice Working Group, formed by the directors of CalEPA's sub-agencies, the director of OPR, and a multi-stakeholder Advisory Group. The Working Group assists CalEPA to develop an interagency strategy that ensures all programs, policies, and activities take environmental justice into consideration (King, 2001; Targ, 2005). Thanks to the subsequent statutes, the comprehensive approach was given more specificity.

3. The Power Behind Environmental Injustice

What causes environmental injustice? Autin and Schill (1994) observe that "[people] of color in the United States have traditionally had less clout with which to check legislative and executive abuse or to challenge regulatory laxity" (55). This statement suggests two important points worth noting: that many communities cannot check legislative abuse and that they lack power to challenge regulators.

A. Checking Legislative Abuse

The first point is that a community often lacks the ability to check whether a company is complying with policies and take action against violations. This also means it lacks access to legal advocates, which, according to Gordon and Harley (2005), is important if a community or neighborhood wants to use environmental laws and policies as a tool to fight injustice. The authors note that "environmental law provides rich opportunities for public participation," allowing citizens to file

enforcement actions to have companies comply with regulatory, statutory, and permit requirements (p. 162) (the limitations of the use of environmental laws to fight for justice will be discussed in the following section). Therefore lack of access to advocates could mean less power for the community; for example, many black organizations have been taking a strong "pro-environment stance," trying to eliminate hazardous facilities for their own health and for the environment (Bullard, 2000). However, because many of them do not have an organization or specialists supporting them, it is difficult to confront large polluting companies:

> The problem is complicated by the fact that blacks in many cases must go outside their community to find experts on environmental issues. Lawyers, toxicologists, hydrologists, and environmental engineers in today's market are not cheap (Bullard, 2000, p. 15).

Although organizations that provide legal services to low-income minority communities have been increasing since the 1980s and 90s, their number and power is still limited. The federal Legal Services Corporations limits how much a federally funded legal organization may assist clients with full representation in environmental cases (Gordon and Harley, 2005). Having support from legal experts and environmental organizations is vital for a community to take action against polluters.

Hamilton (1993, 1995) makes this point too, but from a different angle. He examines what factors companies take into account when deciding where to locate hazardous-waste facilities or which facility to target for capacity expansion. He

concludes that the communities' capacity to take collective action against hazardous facilities best explains environmental discrimination. Bullard (2000) agrees with Hamilton, saying that locally unwanted land uses (LULUs) have taken the "path of least resistance," leading corporations to place them in areas that lack political and economic power (p. 3). According to Agyeman et al. (2002), this is the trend not only in the US but also around the world. This reinforces the importance of having access to supporting organizations, as these often catalyze collective action by proving the presence of environmental discrimination and attracting attention to it. Many communities in the past have suffered from environmental injustice for these reasons, too. They had "some fairly high barriers to effective mobilization against toxic threats" because they lacked access to legal and scientific expertise, did not have enough time and money, and had a harder time attracting attention from media and politicians (Austin and Schill, 1994, p. 57).

B. Regulatory Laxity

The second deterrent to the achievement of environmental justice that Austin and Schill (1994) note is that the state and federal regulators, who are in charge of protecting the citizens, do not regulate companies effectively, especially in lower-income minority communities. Konisky (2009) examines the difference in state enforcement of the Clean Air Act, Clean Water Act, and Resources Conservation Recovery Act between the years 1985 and 2000. He found that states conducted less policy enforcement in areas that had a lower income or higher poverty rate; he did not find a significant correlation with the percentage of minorities in those areas. Several

other studies found similar trends. Mennis (2005), after examining the community impact of some air polluting facilities in New Jersey, concluded that the facilities in high minority areas tend to violate more regulations but receive fewer notices and penalties from the state. In 1992, the *National Law Journal* investigated the US environmental lawsuits that have taken place between 1985 and 1991. They found that facilities situated in largely white-populated areas received penalties under the hazardous waste laws that were 500 percent higher than those situated in minority-populated areas. Additionally, the study revealed that EPA chose containment more often as a way to deal with contaminated sites rather than cleaning the site up in minority communities (Lavelle and Coyle, 1992). The article quotes Robert Bullard commenting on how decisions are made:

> People say decisions are made based on risk assessment and science… The science may be present, but when it comes to implementation and policy, a lot of decisions appear to be based on the politics of what's appropriate for that community. And low-income and minority communities are not given the same priority, nor do they see the same speed at which something is perceived as a danger or a threat. (Lavelle and Coyle, 1992).

Regulators are not the only ones who make unfair decisions. Gordon and Harley (2005) mention that one of the obstacles for communities or environmental groups to taking legal actions against polluting industries is the increasing number of conservative judges who side with the polluters. The Environmental Research

Foundation discusses a similar issue, too: “Increasingly, our federal judiciary is flagrantly partisan and beholden to corporate money. As a result, environmental laws and regulations in the United States are being gutted” (Montague, 2001, para.3). The Natural Resources Defense Council (NRDC) reported how “right-wing extremist organizations” have been educating judges on how to reinterpret law according to libertarian, free-market theology and how judges have been influenced by organized wealth (Buccino et al., 2001; Montague, 2001). Therefore even if individuals take legal actions against a polluter, environmental law may not always protect them.

Sometimes the regulations are not adequate to protect citizens, too. One example of this is Title VI of the 1964 Civil Rights Act, which prohibits projects that receive funding from the federal government to discriminate people based on their race, class, color, or origin. EPA also enforces this policy. Private legal action under Title VI allows individuals to sue companies for environmental discrimination and obtain remedy from the federal court, but one must prove that the discrimination was *intentional*. Because the private legal action was not effectively protecting citizens, in 1993 EPA started accepting administrative complaints from individuals. This has allowed citizens to make environmental discrimination claims without the proof of an intention. However, this has not been successful either. EPA has not identified any violators thus far because (1) they do not have a clear idea of what constitutes as environmental discrimination that would violate Title VI definition of environmental justice, and (2) many individuals did not fulfill the “procedural requirements” to make a valid claim (Gordon and Harley, 2005). The Center for Public Integrity, an investigative news organization, reported how a predominantly African American

community in Baton Rouge filed a Title VI complaint four times between 2009 and 2012 to the EPA about the invasion of sewer flies and the pollution in the neighborhood. However, they never received an approval. Many complaints have similarly been denied because they did not explain the discriminatory actions prohibited under Title VI in the complaint. This requires complainants to know about the civil rights law before filing a complaint (Lombardi et al., 2005).

Executive Order 12898 faces similar problems. Those who head up federal agencies are in charge of monitoring compliance with the Executive Order, but no agency has a full-time federal staffer in charge of environmental justice issues. Therefore not many environmental justice investigations have been conducted in the past (Gerber, 2002). Another downside of this Executive Order is that citizens cannot use it to seek judicial relief for an environmental justice issue because it did not create any legal rights or remedies. Because it is not enforceable in court, litigation against discrimination and unjust activities must take place within the framework of civil rights violations. (King, 2001).

To further evaluate the effectiveness of the Executive Order, Gerber (2002) examined the frequency of it being used proactively, affecting the rules and behaviors of federal agencies. He concluded that although many agencies address Executive Order 12898 in their environmental justice concern when developing a rule, they only use it when the circumstances are favorable for them politically, and the degree to which this Order is enforced depends on who is president of the United States. For example, Gerber's research showed that affirmative use of the Order was lower during George W. Bush's presidency. Similarly, Konisky (2009) investigated whether

the Executive Order 12898 and other federal policies that prioritize environmental justice issues had any effect on the implementation of the Clean Air Act (CAA), Clean Water Act (CWA), and the Resources Conservation and Recovery Act (RCRA) at the state level. Although there were some limitations to his study, such as investigating policy enforcement at county-level instead of smaller geographical areas, the results show that the federal government's efforts did not have a significant positive impact on state regulatory enforcement. Konisky states that this is because the policies give discretion to states on the method of enforcing environmental justice regulations. However, there is a possibility that the federal policies did affect the licensing and siting of hazardous facilities.

4. Environmental Justice Issues in Remediation Processes

While environmental injustice in policies and company operations have been researched extensively, there have only been a few studies done on environmental justice issues surrounding the remediation of federal and non-federal cleanup sites. The Comprehensive Environmental Response Compensation and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress in 1980. Its aim is to address the numerous hazardous waste sites that had been abandoned and treat them to reduce environmental and human risk. The *National Law Journal* analysis of the act revealed that Superfund sites in minority areas take about 20 per cent longer to be included in the National Priority List (NPL) than those sited in white communities. In addition to this, "containment" (preventing contaminants from migrating) of hazardous waste sites is more frequently chosen as a way to deal with contamination than "clean up" is in minority communities, as the cost of

containment is significantly smaller (Lavelle and Coyle, 1992). Although cheaper, because containment methods do not remove contamination, the risk of exposure still exists. According to Ferris (1993), communities of color living near Superfund sites have to deal with more inefficient and ineffective remediation because they lack the resources to serve as a government watchdog.

Eckerd and Keeler (2012) researched the remediation process of a brownfield, which is "a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant" (EPA, 2015). They investigated whether communities' demographics and economic status influenced remediation methods or timelines in the United States. They concluded that brownfield sites were more likely to be located in neighborhoods with lower socioeconomic status, and racial composition often determined the pace of cleanup. In particular, the assessment period of the remediation process was longer for minority communities. Eckerd and Keeler suggest that this may be due to complications such as language barriers when discussing with the site stakeholders.

These studies show that environmental-justice issues exist not only in hazardous facility siting but also in the remediation process, and that socioeconomic statuses, especially the community's racial composition, often determine the remediation method. In order to understand how remediation of eastern Los Angeles can be carried out and what community members can do to make it as effective as possible, we need to first look at the history of eastern Los Angeles: how did the area develop, and what environmental justice issues have arisen in the past?

II. History

1. Eastern Los Angeles

A. How did eastern Los Angeles develop?

Los Angeles is the US's largest manufacturing complex with a high concentration of industries (Pulido et al., 1996). According to the Toxic Release Inventory (TRI) released by the US Environmental Protection Agency (EPA), there are 385 TRI facilities in Los Angeles County and a total of 5.5 million pounds of toxics were released in 2013 (EPA, 2013). As a consequence, Los Angeles is one of the most polluted cities in the nation. In general, Chicano/Latinos inhabit the areas surrounding polluting facilities, many of which are located in eastern Los Angeles. Vernon, the city where Exide Technology's secondary lead-battery recycling plant is located, has twenty TRI facilities that emit 546,500 pounds of toxics per year (EPA, 2013), making Vernon one of the most polluted cities within Los Angeles county.

A common debate in environmental justice issues is the question of whether the facility came to the low-income, minority community or the low-income, minority residents moved into the area surrounding the facility (Been and Gupta, 1997; Cutter, 1995; Pulido et al., 1996). Looking at the history of the community is vital to deduce an answer to this question. In the case of eastern Los Angeles, we need to look back to the 1820s and 1830s when Mexican immigrants arrived in the pueblo of Los Angeles after Mexico's independence from Spain. At first the Mexican population was spread throughout the area instead of being confined to one area. There was a clear class division between the Californios (Spanish-Californians) and the Mexicans who did much of the manual labor. This gap between the two groups widened during

the 1840s when California became further incorporated in the US market economy. As Anglo Americans and Europeans moved into Los Angeles, Mexicans became the minority and thus gradually lost their land rights and political power. They gradually migrated to new barrios developed in eastern Los Angeles (Acuña, 1984). The increase of Latino population posed a negative image on eastern Los Angeles as dirty and dangerous. With inferior roads and unsanitary water supply, Mexicans suffered from epidemics such as the smallpox in 1877. City authorities blamed Mexicans' unsanitary lifestyles, though, instead of showing sympathy (Acuña, 1984). The northern area of this region, now Boyle Heights, attracted industries that depended on cheap labor. Mexicans too found the area attractive due to employment opportunities and a relaxed enforcement of the building code that made home ownership easier than other places. Eastern Los Angeles became a hub for construction-material industries like railroad yards, brickyards, and light manufacturing. Although the area initially comprised of not only Mexicans but also other ethnicities such as Jewish, Armenian, and Russian, most of them moved out as Mexican immigration into the area increased dramatically in the 1940s (Pulido et al., 1996).

The southern part of eastern Los Angeles, which is now Maywood, Huntington Park, and Bell, developed differently from the northern part. This area was founded between 1906 and 1924 as a community for the white working-class working at automobile industries in Vernon. They began to leave the area in the 1970s, though, as automobile companies left and minority activism increased. As Latinos replaced the whites, the image of eastern Los Angeles decreased even more. (Pulido et al., 1996).

While Boyle Heights, Bell, Maywood, East Los Angeles, and Huntington Park have some of the highest population densities in Los Angeles County (average 17,000 people per square mile), Vernon has an unusually small population of 114 people (18 people per square mile) (LA Times, n.d.; US Census Bureau, 2014). This is because Vernon has a very different history from the rest of eastern Los Angeles. When Vernon was incorporated in 1905, it was designated as an "exclusively industrial city" by its developer, John B. Leonis (Vernon Chamber of Commerce, 2012). He thought the large farmland had the potential to become an industrial hub (Becerra, July 19, 2015). He and two ranchers, James and Thomas Furlong marketed the city as a "Sporting Town" at first, believing it would attract businesses (Vernon Chamber of Commerce, 2012). A boxing arena and a baseball stadium were built, but in 1919 the city refocused itself as an industrial city and developed various industries, particularly the meat industry (Vernon Chamber of Commerce, 2012). Since then, the city has been well known for corruption; city officials have used public money numerous times to indulge in luxury (Becerra, July 19, 2015).

In 2011, State Assembly Speaker John A. Pérez tried to disincorporate the city through the disincorporation bill, AB 46, to end the long history of Vernon's corruption (Allen, June 21, 2011). However, because this would put many companies out of business, many lobbyists and attorneys from Vernon worked to kill this Bill (Allen, December 13, 2011). State senator Kevin de León helped Vernon defeat the Bill under the condition that the city would set aside $60 million to fund community projects in eastern Los Angeles (Allen, December 13, 2011).

Through these developments, eastern Los Angeles became the place it is

today: An industrial area surrounded by cities heavily populated by Latinos; a place where citizens have been fighting for a clean and safe environment for decades.

B. Environmental justice movements in eastern Los Angeles

The most well-known environmental justice movements in eastern Los Angeles is the Mothers of East Los Angeles (MELA). The group first united to oppose the state prison that was planned for construction in the area in the 1980s. State Assemblywoman Gloria Molina, who opposed the construction of the prison, approached Juana Beatríz Gutiérrez, a resident in Boyle Heights in 1985 to inform her about the project that the Department of Corrections had been planning. Despite the requirement that communities must be consulted before selecting a project site, residents did not know about this; Gutiérrez said, "Nobody knew about the plan to build a prison in this community until Assemblywoman Gloria Molina told me" (Pardo, 1998, p. 110). She gathered a few community leaders to discuss the lack of transparency and public participation in the siting process.

This group, which eventually became MELA, opposed the prison construction for three main reasons: because of its proximity to 26 schools in the area and to the heavily populated Boyle Heights community, and because half a dozen prisons were already situated in the area (Gutiérrez, 1994). The initial group consisted of group of five women and Gutiérrez's husband, Ricardo, and they raised awareness among the community by collecting nine hundred signatures on petitions (Pardo, 1998). Father Moretta from the Resurrection Church in Boyle Heights also participated by announcing about the marches after mass and also having priests in

other parishes do so too (Pardo, 1998). MELA attracted media attention by having candle vigils every week and marches across the Olympic Boulevard Bridge. It also created its own research and information campaign to gather more information (Gutiérrez, 1994). Thanks to these efforts, the state senate defeated the bill that authorized the construction of the prison in 1986.

With this success, MELA decided to oppose industries that threatened the surrounding environment. Members were outraged when they heard about the oil pipeline construction that was being proposed by oil companies in 1987. It would be built between the wealthy coastal resort Santa Barbara, which is ninety miles north of Los Angeles, and Long Beach, which is twenty miles south of Los Angeles. The pipeline would only be three feet underground and would cut through East Los Angeles to bypass affluent communities. In collaboration with the Coalition against the Pipeline, they defeated this plan. "We won because the Westside was opposed to it, so we united with them. You know there are a lot of attorneys who live here, and they also questioned the representative," one activist said (Pardo, 1998, p. 132-3). This victory prompted the mothers to bring environmental justice to the community by participating with outside organizations more (Gutiérrez, 1994; Pardo, 1998).

Their next attempt was to oppose the hazardous waste incinerator construction that was being planned by California Thermal Treatment Services (CTTS) in Vernon in 1987. Vernon had a very small residential population (90 in 1980 and 150 in 1990), but many industries where 51,000 people worked daily. Because of this, decisions made by the city council often favored the industries (Pardo, 1998). Cerrel Associates had even prepared a report for the California Waste

Management Board that stated that hazardous facilities should be placed in a city like Vernon: "Middle and higher socioeconomic strata neighborhoods should not fall within the one-mile and five-mile radii of the proposed site. Conversely, older people, people with a high school education or less are least likely to oppose a facility" (Powell, 1984). This description points to low-income, minority citizens as they are less likely to have obtained higher education (Gutiérrez, 1994). Similar to the state prison case, an Environmental Impact Report (EIR) was not prepared because the South Coast Air Quality Management District (SCAQMD), the Department of Health Services (DHS), and the EPA insisted that there would be no environmental or health impacts (Gutiérrez, 1994; Pardo, 1998). Opponents gathered four thousand petition signatures, marched, and assembled at the DHS to demand an EIR. MELA, City of Los Angeles, and Assemblywoman Roybal-Allard even sued DHS for giving a permit to the company (Gutiérrez, 1994). On May 24, 1991 CTTS finally gave up building the incinerator. Not only did MELA stop the incinerator from being built there, but they also contributed to having Assembly Bill 58 signed. This Bill "provides all Californians with the minimum protection of an environmental impact report before the construction of hazardous waste incinerators" (Gutiérrez, 1994, p. 135).

MELA gained national and international recognition by stopping many hazardous facilities from being built in their community. They also debunked the argument that environmental injustice happens in these minority communities because Latinos are apolitical (Gutiérrez, 1994). MELA encouraged other environmental justice organizations to form in the community. Today, Communities for a Better Environment (CBE) and East Yard Communities for Environmental Justice (EYEJ),

which is led by Mark Lopez, grandson of Juana Gutiérrez, are two of the main environmental justice organizations based in eastern Los Angeles. These two groups have been deeply involved in Exide Technology's case, too.

2. Exide Technologies

Exide is a multinational secondary lead battery-recycling corporation that has a rich history extending over 120 years. It originated as The Electric Storage Battery that was founded in place in 1888 by W.W. Gibbs. He wanted to make a storage battery for electric lighting companies so that they could provide electricity to customers more conveniently. By buying ideas and patents from the French storage battery inventor Clement Payen, Gibbs was able to create the first practical storage battery, the Chloride Accumulator. This was first installed in the Germantown Electric Light Company in Philadelphia. Shortly after, the company received numerous requests to install its battery from various companies: the battery moved Lehigh Avenue Railway Company's streetcars, lit Pullman Company's luxury railroad cars, and even powered the first submarine in the U.S. In the beginning of the 20th century, the company made a new battery that had greater capacity and less weight for the electric taxicabs that were extremely popular then. This new battery was named "Exide," short for "Excellent Oxide." The new battery, Exide, was an important part of development in the new century, as it was involved in "exploration, communications, and warfare" (Exide Technologies, p.3, 2010). In 1954, the company split its lead-acid battery operation into the automotive and industrial divisions. It continued to expand its business by acquiring companies around the

country, and Exide batteries even contributed to NASA's space explorations. In 1993, the company started operating in Europe by acquiring companies in the United Kingdom, Spain, and France, and became the first battery manufacturing company to launch a website on the World Wide Web. The company was renamed "Exide" in 1995 and it was acquired by Gould National Batteries (GNB) Technologies, a global battery business that supplied automotive batteries in North America in 2000. Today, Exide operates in 80 countries with manufacturing plants in 11 countries. According to the company website, its key strengths are that "its products and services span global markets and geographic borders, melding two significant bases of experience and technology expertise across its operations" (Exide Technologies, p.6, 2010). Although Exide seemed to be making steady profit, in 2002 it filed the Chapter 11 Bankruptcy Protection; the large debt came from recent acquisitions.

Exide operates many facilities around the world, such as energy manufacturing facilities, plastics manufacturing facilities, and plastics recycling facilities. In addition to the Vernon plant that closed in March 2015, battery-recycling plants in Visalia, California and Frisco, Texas have also closed in 1990 and 2012 respectively, and are in the process of remediation. Exide still operates battery-recycling plants in Canon Hollow, Missouri and Muncie, Indiana; the plant in Indiana is also continuously violating environmental regulations, and communities are working to force Exide to comply with regulations (Slabaugh, 2015).

3. Exide's Vernon Plant

A. Facility's interim permit

There has been a secondary lead/metal recycling plant in Vernon since 1922 and several companies owned the facility before Exide bought it from Gould National Battery (GNB) in 2000. On December 18, 1981, during Gould Inc.'s ownership, the plant submitted a Resource Conservation Recovery Act (RCRA) Part A application, indicating that the facility treats, stores, or disposes hazardous waste. Such facilities must be granted a RCRA Part A or Part B permit from the EPA to continue hazardous waste handling. While waiting for the permit to be issued, Gould Inc. received an Interim Status Document from California Department of Health Services (later DTSC) to continue its operation. EPA rescinded Gould Inc.'s classification as a hazardous treatment and storage facility, though, and their Interim Status Document was also rescinded. When GNB purchased the plant they applied for a RCRA Part A permit again as DHS thought that they needed a permit for their operation. In 1988 GNB submitted a RCRA Part B application, which gives a final administrative permission to the facility. GNB only received an Interim Status Document, and after Exide took over the plant in 2000, the new owner attempted to apply again but failed to receive a full permit. Until its shut down on March 12, 2015, Exide remained operating on an interim permit (Senate Committee on Environmental Quality, 2014).

B. History of violations

At full capacity, the plant can recycle 25,000 batteries per day, which, according to Exide, "supports [their] commitment to environmental sustainability around the world" (Exide Technologies, 2015). While Exide claims to be environmentally friendly because they recover most of the lead from spent batteries

instead of taking them to the landfill, it has been fined numerous times for violating regulations mostly on lead emission and hazardous waste storage. The Department of Toxic Substances Control (DTSC), the agency that regulates toxic substances in California, first fined Exide $40,000 in 2003 for storing hazardous waste (used lead-acid batteries) at an unauthorized location and thus violating the Health and Safety Code ("Consent Order," 2003). It fined Exide again in 2004 to force it to clean up public areas such as sidewalks and roofs as well as the drainage channel that were contaminated by lead. The Air Quality Management District (AQMD), California's air pollution control agency, also fined Exide that year for violating two air quality regulations.

Exide filed a complete hazardous waste facility permit (RCRA Part B) in 2006. The draft permit was circulated for public comment, and this was the closest Exide ever got to receiving a permit. Just a month later, DTSC fined Exide $25,000 for violating six regulations: for failure to store used batteries in an authorized area, minimize the possibility of releasing toxic chemicals, label pallets of batteries properly, store batteries in secure containers, secure adequate space within the facility, and to label the trailers carrying hazardous wastes ("Consent Order," 2006). Violations continued even after these large fines and resulting bad publicity: The California Regional Quality Control Board discovered that Exide deposited a total of 1500 pounds of lead into the Los Angeles watershed from 2004 to 2006. In 2008, AQMD's air quality monitors showed that Exide's lead emissions had exceeded the federal limits by almost two times. Exide was ordered to cut its production by 50 per cent as well as to follow the new compliance plan for lead emissions that May

(AQMD, 2008). Exide argued against this decision, claiming that the source of the lead was elsewhere (Wilson, June 20 2008). It filed a petition with the Hearing Board in late May 2008 and was granted permission to resume full production on June 24 after their operations complied with the regulations (*Exide Technologies Inc. v. South Coast Air District Management District*, 2008). In 2009, Exide paid $400,000 to AQMD to settle the violations of fourteen air quality regulations and to reimburse them for compliance inspections.

Shortly after DTSC fined Exide $100,000 in August 2010 for illegally storing hazardous sludge in an unauthorized unit and failing to remove sludge from the Storm Water Retention Pond, AQMD adopted Rule 1420.1. This Rule applies to battery recycling plants that process more than 50,000 tons of lead per year. The purpose of the Rule is to "protect public health by reducing exposure and emissions of lead from large lead-acid battery recycling facilities, and to help ensure attainment and maintenance of the National Ambient Air Quality Standards for Lead" (AQMD, 2015). It requires facilities to monitor, operate, and report more strictly to comply with the new federal standard for airborne lead pollution. Although Quemetco Inc., the other battery recycler west of the Rocky Mountains, had installed new technology to comply with these regulations, Exide had not been as responsive. Corey Vodvarka, Exide's plant manager, told AQMD that it was difficult for them to install new technology because it would "threaten the economic viability of the Exide Vernon, CA. recycling facility and Exide would have to consider the alternative of expanding operations at its other recycling facilities outside of California" (Roosevelt, November 10 2010). Nonetheless, Exide developed the Compliance Plan Early Action Measures

to comply with the new rule (ENVIRON International Corporation, 2012)

In 2011 Exide admitted that they exceeded the air quality standard defined by Rule 1420.1 and lowered their emissions to comply with law, but the following year they violated seven air quality regulations again and paid AQMD a fine of $119,000 (Senate Committee on Environmental Quality, 2014).

The shocking impact that Exide's operation had on nearby residents was revealed on March 1, 2013: Exide's health risk assessment showed that the facility was putting almost 110,000 people living in the area in danger of cancer (Garrison, March 23 2013). AQMD ordered Exide to immediately cut emissions, implement a long-term solution, and hold public meetings to inform residents of the risks they faced. This latter stipulation is in response to California's AB2588, also known as the Toxic Hot Spots Program, which requires industrial operations to inform nearby residents when the cancer risk is higher than 10 cases per one million people; if the risk is higher than 25, then they must implement a plan that reduces this risk below the limit within three years (AQMD, 2014). The health risk assessment showed that the cancer risk for residents living nearby the Exide plant was 156 cases per million, mostly due to arsenic emissions. If Exide failed to submit a risk reduction plan within 180 days, it would have been subject to a fine of $25,000 per day and could have faced a court order to close its facility (Garrison, March 23 2013). Just four days after this, some breaches in underground pipelines used to transport contaminated water to the waste treatment tank were found. This violation and the high cancer risk that was revealed led to Exide's temporary closure in April 2013.

Many people expressed concerns about why it took so long for Exide to

close even temporarily. Residents and state officials questioned DTSC's role as a regulator – Felipe Aguirre, Maywood Councilman, said that he had been asking DTSC to take strict actions but it did not do "a damn thing." Similarly, State Senator Kevin de Leon said: "it shouldn't take a Los Angeles Times story or letters from legislators for the DTSC to become engaged". Vernon City Administrator Mark Whitworth even said that officials would monitor the regulators to make sure that they do not allow the facility to reopen without making the necessary changes for a safer operation. However, not all were happy about the temporary closure. Some people worried that if the plant remained closed, taxpayers would have to pay for the cleanup, as $10 million, the amount that Exide proposed to pay to clean the community, was far from enough (Garrison, April 25 2013).

On May 7, 2013 Exide opposed DTSC's order to shut down the plant temporarily, saying that DTSC had been aware of the issues raised in the Order and Accusation and permitted operation. Exide stated as follows in its Notice of Defense:

> Exide hereby requests an immediate Stay of the Order and Accusation until such time as a decision is reached on the merits. Exide asserts that there is no imminent and substantial danger to the public health, safety, or the environment. Further, the DTSC has failed to allege facts that support or substantiate its claims. The Order and Accusation has effectively shut down Exide's business operations in Vernon, resulting in substantial loss of employment and financial harm. Exide requests that the Court dismiss the Order and Accusation filed by the DTSC, and enter an order permitting

Exide to resume operations at its Vernon plant ("Notice of Defense," 2013).

Some residents opposed DTSC's order, too. Exide workers and their families raised concerns over the temporary closure of the plant. At one of the public meetings, many former employees pleaded officials to allow Exide to resume its operation: "Stop trying to destroy our family… Let's stop trying to blame everything on Exide," said a wife of one of the employees (Garrison, May 31 2013). Pierre Sycip from AQMD explained in an interview how many workers claimed that they were in good condition; "Exide had a good occupational history, a record of no one getting hurt, they were being monitored in terms of lead levels, and I think they had the cleanest lead levels of people working in the lead industry" (P. Sycip, personal communication, October 8 2015). Many families have lived around Exide and worked at the facility for several generations. Thanks to this connection, they had been able to send children to colleges. It was understandably important for these employees to keep Exide in operation.

On June 11, 2013, Exide filed for bankruptcy protection. It said that the temporary closure of the Vernon plant and the company's poor performance in the fourth fiscal quarter of 2013 were the main reasons for the company's financial situation: "competition in the battery industry has intensified, especially in the auto parts retail and mass merchandise channels where large customers are able to use their buying power to negotiate lower prices and longer payments terms, or move business elsewhere" (Prasad, June 10 2013). People worried that Exide might avoid paying for cleanup by using bankruptcy as an excuse (Christensen, June 11 2013).

Yet on July 2, 2013 the Los Angeles Superior Court declared that Exide could resume operations until DTSC's proceedings against the company had been completed. There were three main reasons for this decision. First, the court said that DTSC's claims that Exide is causing cancer risk to 156 per million cases and that the breaches in the underground pipeline cause a threat to the environment and residents were not well supported because they lacked evidence. When AQMD demanded a risk reduction plan to Exide after the health risk assessment indicated unacceptably high cancer risk to nearby residents and workers, Exide implemented several plans such as installing an isolation door system to its blast furnace to reduce emissions. After this installation, emissions data showed that cancer risk to nearby residents and workers decreased significantly; arsenic emissions were within the amount considered acceptable by AQMD. In fact, arsenic emissions had decreased by at least 97 per cent one week before the temporary closure order was issued. DTSC's Branch Chief, Rizgar Ghazi, was not aware of this when issuing the order. Additionally, DTSC said it could only accept a cancer risk of one in one million, but because there is no such law in California that requires this level of safety, the court denied this argument. Similarly, the claim that the breached pipelines "are a source of continuous daily releases to the environment of hazardous waste-containing water" was considered invalid too, as proof was insufficient (*Exide Technologies v. Department of Toxic Substances Control*, 2013). DTSC did not provide data on groundwater quality (which, in fact, had been stable for a decade) nor described how breaches on the upper part of the pipeline could cause leaking when the pipeline was not full. Thus the court concluded that DTSC's claims for shutting down Exide temporarily were not

acceptable.

The second main reason for the court's decision was the significant harm that the order would cause to Exide. It had already laid off 65 employees at the plant and continued closure would damage Exide's business and relationship with its customers even more. Lastly, the court decided that shutting the plant temporarily would not "prevent or mitigate an imminent and substantial danger to the public health or safety or the environment" and thus should be allowed to operate, considering how operation could mitigate damage to the company (*Exide Technologies v. Department of Toxic Substances Control*, 2013).

Due to these three points, the court stated that Exide could operate under the following conditions:

1. Exide shall use the recently installed temporary piping and sump system to bypass the existing storm water piping system that was the subject of the Department's Order;
2. Exide shall, as soon as possible, with notice to the [DTSC] and the SCAQMD conduct source testing to confirm emissions reductions as a result of the installation of the isolation door on the blast furnace; and
3. After completing start-up testing, Exide's air emissions shall comply with SCAQMD's Rule 1402 (*Exide Technologies v. Department of Toxic Substances Control*, 2013).

   Note: Rule 1402 is AQMD's risk reduction plan.

Exide returned to its full workforce of 130 employees thanks to this decision, but agency officials and many community members expressed anger (Garrison, July 3

2013).

Their anger did not dissipate when on October 7, 2013, DTSC finally issued a Stipulation and Order that "[resolved] the administrative suspension order that DTSC issued against Exide in April 2013 and [resolved] a legal action that Exide filed against DTSC in June 2013" (DTSC, 2013). There were several conditions that Exide had to meet, such as "[implementing] a Department-approved sampling plan to determine the full extent of any contamination (lateral and vertical) in soils surrounding the storm sewer pipe system at the Facility" and "[reducing] potential health impacts from stationary air emission sources at the Facility" ("Stipulation and Order," 2013). Although DTSC thought that Exide had an adequate plan for cleanup and safe operation, many disagreed and fought against this. Liza Tucker from Consumer Watchdog said that the cleanup plan that DTSC filed was 23 years old and the $10 million that Exide set aside for cleanup was not nearly enough to cover all the cost (Peterseon, September 3 2013). Elected officials from all over southeast Los Angeles also rallied against Exide. Huntington Park Councilwoman Karina Macias said at a meeting in Boyle Heights: "The solution… is right here in this room… More marches. More meetings like this one" (Garrison, September 10 2013). To calm the nearby residents who were afraid they were getting sick because of lead, the Los Angeles County Department of Public Health decided to offer free blood testing to the neighborhoods around the Exide plant. Residents were especially interested in testing how much their children had been exposed to the toxic chemical, as it has the potential to cause developmental and learning disabilities in children. Blood testing only measures lead exposures in the last four months, though, so some questioned the

effectiveness of it if chronic exposure could not be found (Garrison et al., September 14 2013).

By mid-September, Exide was ordered to cut its production by 15 percent because an air monitor detected levels of lead that were above the AQMD emission limit. This was similar to the situation that had occurred in 2008. The company was also told to monitor its lead emissions every day instead of every third day (Garrison, September 19 2013). Despite such efforts, Exide continued to emit lead above the permitted level (Garrison, October 3 2013). Even though Exide was not complying to regulations, DTSC strikingly dropped its efforts to close the plant under the condition that Exide would set aside $7.7 million to improve the plant system and to pay for soil, dust, and blood testing in nearby neighborhoods. While some praised DTSC for having Exide agree to a plan that sets out compliance deadlines and penalties in case Exide did not follow, many community members and organizations were outraged that this decision was made without any community input (Garrison and Kim, October 8 2013). Angry residents and officials gathered at the public meeting on October 9, 2013 to ask why they were being treated unfairly: “At what point does this become blatant racism?” “There are no Exides in Brentwood… in Malibu;” “Are our children worth as much as any other child?” (Garrison, October 9 2013).

While DTSC agreed to allow Exide to operate under certain conditions, AQMD took the opposite position – it filed a petition with the Hearing Board to close the plant “until its air pollution control systems are improved and deemed adequate to control arsenic emissions” (AQMD, 2013). AQMD also decided to tighten Rule 1420.1, which regulates arsenic, benzene, and 1,3-butadiene emissions for the two

lead-battery recycling facilities that Exide and Quemetco operate. This new rule indicates that "on and after February 1, 2014, the owner or operator of a large lead-acid battery recycling facility shall not allow emissions to be discharged into the atmosphere which contribute to an ambient air concentration of arsenic that exceeds 10.0 nanograms per cubic meter averaged over a 24-hour time period" (AQMD, 2014). Exide was not happy about this new rule, though – on February 11, it sued AQMD for enforcing Rule 1420.1, saying that compliance to this Rule is "infeasible" (Martinez, February 13 2014; AQMD, 2014). Sycip from AQMD said that Exide was actually present during the rule-making process: "at first they didn't complain during the rule making, but after the rule making, they found out that they couldn't comply" (P. Sycip, personal communication, October 8 2015). According to him, Exide wanted a variance, which is "an administrative exception to a law" that "allows a company to continue operating in violation of SCAQMD's rules without penalty while it takes appropriate steps to meet air pollution control requirements" (AQMD, 2014). AQMD did not grant this, though, which led to Exide filing this lawsuit. The Superior Court Judge also denied Exide's request on April 7th (Garrison, April 9 2014).

Then there was the problem of contaminated soils. In March 2014, tests revealed that high levels of lead were found in the soil of homes near the Exide plant. All homes that had been tested showed amounts that exceeded 80 parts per million and the preschool north of Exide showed an amount of 95 parts per million. At 80 parts per million, the state of California recommends health evaluations to be conducted. People increasingly became concerned about their health and safety, and

how Exide would clean up these contaminated soils (Garrison, March 11 2014).

After forcing Exide to rewrite its risk reduction plan two times, AQMD approved the company's plan of setting aside $5 million for emission reduction efforts on March 20th (Garrison, March 21 2014). Exide had suspended operations since March 14th to upgrade its pollution control system; its request to resume lead smelting was denied by AQMD, though, because it had not complied with the new Rule 1420.1 and continued violating the rule even when it was not operating (Garrison, April 9 2014). This led to the company to temporarily lay off almost all of its employees: "Because our Vernon facility is not currently operating and not able to meet the new operational standard… we had no choice but to make this very difficult decision," Exide's Chief Executive commented (Mai-Duc, April 23 2014).

None of the company's efforts amounted to much: Exide suffered from numerous violation and compliance notices from mid-2014 until its shutdown in March 2015. The federal environmental agency, EPA, cited Exide on May 22nd, 2014 for violating the Clean Air Act by emitting too much lead. Although EPA had inspected the facility before, this was the first time it had cited the facility (Branson-Potts, May 24 2014). On June 17th, DTSC discovered that Exide's application for handling hazardous waste was insufficient and demanded a revised application within 30 days. The application lacked a cost estimate of how much money would be needed to clean up the site after the plant closed permanently; the amount of lead-contaminated soil that will need to be removed from the site; the safety assessment of tanks that hold hazardous waste; and the sampling needed to determine contamination (DTSC, June 17 2014).

Despite the growing opposition to Exide's operation, AQMD decided to give Exide another chance by allowing it to reopen its Vernon facility, under the condition that Exide installed arsenic-controlling equipment and made sure that lead dusts did not escape into the neighborhoods; AQMD made this deal with Exide to force them to protect public health (Barboza, July 11 2014). But Exide faced another challenge – it received a grand jury subpoena from the Department of Justice, requesting documents on Exide's hazardous waste transportation and air emissions (Barboza, August 16 2014). On August 11, two homes in Boyle Heights had lead-contaminated soil removed from their yards. One of these homes had a sample of over 580 parts per million, and the other 450 parts per million, both well over the 80 parts per million line where California recommends health evaluations to be conducted (Barboza, August 12 2014). In addition to this, DTSC decided to expand the area of testing for lead-contaminated soil. They suspected that lead might have been transported farther than the 39 homes and a preschool in Boyle Heights and Maywood that were originally tested (Barboza, August 12 2014).

The movement to permanently close Exide intensified in the latter half of the year. Governor Jerry Brown signed a bill on September 29th that required DTSC to either issue a full hazardous waste permit by the end of 2015 or shut the plant down permanently (Mason et al., September 30 2014). In addition to this, the Los Angeles County Board of Supervisors started to consider taking legal actions against Exide to force permanent closure and remediation of the site (Barboza, November 13 2014). A lawsuit was filed at the end of the year claiming that Exide had knowingly exposed residents to hazardous substances through its operation (Kim and Barboza, December

23 2014).

Things went from bad to worse for Exide in 2015. First, it was cited by DTSC for storing hazardous waste improperly (Barboza, January 29 2015). Then, AQMD decided to tighten its lead emission standards for the two lead battery-recycling plants even more: this would limit the amount of lead that can be emitted to half of the original amount, cut the concentration of the lead in the nearby air, and require the companies to monitor the air quality everyday (Barboza, March 7 2015). On the same day, California Senate President Pro Tem Kevin de León asked DTSC's director Barbara Lee "in the strongest terms to deny a new hazardous waste facilities permit to the Exide Technologies Vernon Facility, to close the facility immediately, and to begin implementation of the closure/post-closure plan and cleanup" as "there is no reason why this facility should continue to operate" (De León, 2015). De León ended the letter stating, "it is time to close the facility, clean it up, and restore the confidence of the residents in my district that the state is doing its job" (De León, 2015).

At last the problematic plant was shut down on March 12, 2015. The US Attorney's Office (USAO) entered into an agreement with Exide to immediately close the plant and for Exide to pay $50 million to clean up the site and nearby residential areas (US Attorney's Office [USAO], March 12 2015). However, this deal was made under the Non Prosecution Agreement (NPA), which allowed the company to avoid criminal prosecution despite the crimes that the company had been continuously committing. US Attorney Stephanie Yonekura said that this agreement was necessary to "[ensure] that the Vernon site is permanently closed, while guaranteeing that the

company will survive to adequately finance the cleanup of this long-suffering community" (USAO, March 12 2015). Had the company been prosecuted, taxpayers might have been forced to pay for the cleanup costs. However, if Exide violates the terms of agreements of setting aside $38.6 million for closure and cleanup of the plant and putting $9 million in a trust fund to remove the lead-contaminated soil from neighborhoods, it will face criminal charges for the four felonies – illegal storage, disposal, shipment, and transportation – that Exide admitted committing (Barboza & Vives, March 12 2015; USAO, March 12 2015). DTSC director Barbara Lee said that DTSC will use "every tool and legal mechanism at its disposal to ensure that Exide's remaining resources are used to properly close the facility and clean up contamination in the residential area" (DTSC, March 12 2015). Environmental justice organizations that have been deeply involved in this case, such as Communities for a Better Environment (CBE) and East Yard Communities for Environmental Justice (EYCEJ) expressed dissatisfaction that Exide was not being criminally prosecuted. "When crime is committed in our neighborhoods we go to jail, sometimes we're even deported, so for them to just pay a fine and leave is ridiculous," said Mark Lopez, director of EYCEJ (Martinez, March 19 2015).

C. Remediation of the neighborhood

Exide's departure means that DTSC is responsible for supervising remediation of the site and the surrounding neighborhoods. It is estimated that it will take two years to deconstruct the Exide plant in Vernon and complete on-site remediation. DTSC is still in the process of determining the extent of contamination

in the neighborhoods but has started cleaning up residences that have signed the Consent for Access to Property form distributed by DTSC (Barboza, March 21 2015; Exide Advisory Group Meeting, October 28 2015). Many have expressed doubts about whether the state regulator will properly enforce clean up on Exide, though. "They have no accountability, both for Communities for a Better Environment (CBE) and the community," Robert Cabrales said in an interview (R. Cabrales, personal communication, October 1 2015). To relieve this anxiety, Governor Jerry Brown set aside money to create an independent panel that oversees DTSC's progress in "improving its permitting, enforcement, fiscal management and public outreach" (Barboza, June 27 2015).

Securing the money for clean up is also an issue. In August 2015, soil testing conducted by DTSC revealed that lead may have been carried up to 1.7 miles downwind from the facility, contaminating up to 10,000 homes in southeast Los Angeles (Barboza, August 14 2015). This raised concerns about how the state and regulators were going to secure money for the promised remediation. Exide has put aside $9 million for clean up, but this is far from enough to clean all of the contaminated homes (Barboza, August 14 2015). DTSC director Barbara Lee stated that the department will use $3 million to immediately clean up the most contaminated homes with lead levels of over 1000 parts per million, and another $3 million to conduct more soil testing (Barboza, August 21 2015). In addition to this, DTSC received $7 million from the Governor's Office and Legislature to use for additional testing and cleanup (Exide Advisory Group Meeting, October 28 2015). Governor Jerry Brown also signed bills to give DTSC more power to enforce

regulatory compliance to hazardous waste managers. The new bills increase penalties to those who violate the hazardous waste laws, assist DTSC with recovery of remediation costs, and give power to the department to require the hazardous waste managers to prove that they are able to pay for or clean up contamination when it is necessary (McGreevy & Megerian, October 2 2015). Although DTSC has several sources to receive funding for remediation, Barbara Lee did not clearly state what the Department would do if they ran out of money: "I don't think the money will be exhausted prior to the end of the [fiscal] year… Right now I won't worry too much about it and keep working with what I have" (Exide Advisory Group Meeting, October 28 2015).

III. Tools for Fair Remediation

Communities must serve as a watchdog to make sure that government agencies and the relevant company clean up the site and residential areas properly. Studies have shown that remediation of federal Superfund sites and brownfield sites near minority communities tend to be more ineffective and inefficient (Lavelle and Coyle, 1992; Eckerd and Keeler, 2012). What can Vernon and nearby communities do to avoid being treated like other neighborhoods in the past? How can they push DTSC to complete clean up as safely and quickly as possible? Looking back at what other communities that faced similar problems accomplished is one way to discover some tools that eastern Los Angeles residents can use. Here, we will look at three sites: the Stringfellow Acid Pits in Glen Avon, California, the Price Pfister Faucet Plant in Pacoima, California, and the Exide Plant in Frisco, Texas.

1. Stringfellow Acid Pits

The Stringfellow Acid Pits are located in Riverside County, California, in the Jurupa Hills looking over the small historic town Glen Avon. The site, operated by Stringfellow Quarry Company (SQC) under the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB), opened in 1956 in response to ground water contamination and poisoned cow milk caused by irresponsible chemical disposal. Stringfellow was supposed to be the "responsible alternative" to solve this issue. However, the site constantly exposed the residents of Glen Avon to hazardous chemicals such as lead, arsenic, PCB, and DDT. It used solar evaporation to collect chemical solids from the liquid waste; to expedite the process, a sprinkler was used to

spray the liquid, allowing the chemicals to blow into the community. In addition to this, the pits overflowed three times due to heavy rain, covering farmlands, residences, and schoolyards with hazardous liquid. The site also caught on fire in 1971, raising concerns on what chemicals were being disposed there. This prompted an investigation that revealed that some chemicals such as sulfate, chloride, nitrate, and hexavalent chromium had actually left the site; hexavalent chromium, which is a very toxic chemical was found in Glen Avon Elementary School's water well. Even after these hazards were revealed, government agencies such as Department of Health Services (DHS), Land Use Commission, and Board of Trade supported the continuation of the pit. The site closed permanently in December 1972. Even after this, the State Water Resource Board worked to reopen the site, but the Board of Supervisors revoked the site's operating permit (Newman, 2004).

Studies on remediation methods were conducted after the permanent closure, but the process was extremely slow. In 1978 and 1979 contaminated water drowned the neighborhoods because of heavy rain. The community demanded immediate remediation. In 1979 After heavy rain drowned the town with contaminated water in 1978 and 1979, some residents formed the community organization Concerned Neighbors in Action (CNA) to demand immediate remediation. They actively participated in meetings and hearings to make sure that their voices were heard. This group, while struggling to make the government cooperate, contributed tremendously to having their communities cleaned. In April 1980, members flew to Sacramento to attend the RWQCB hearing on funding priorities under the Clean Water Bond Act. Despite being selected as a top priority site, the Board only requested 4 million dollars

instead of the full 11 million dollars that was estimated to be required for a permanent cleanup to the EPA. Angry members went to the State Water Resources Board hearing in Sacramento the next month to demand the full cleanup cost directly. CNA's persistence and efforts finally paid off on July 2, 1980 when RWQCB agreed to a permanent and complete cleanup of the neighborhood, requesting 11 million dollars from the EPA (Newman, 2004).

Although this was CNA's first victory, it was aware that its fight was not over. It knew that securing funds would be difficult, and to make sure that the government agencies do not break their promise, CNA kept Stringfellow in the news. However, the investigation that RWQCB conducted revealed that the clean up would be much more costly than expected. Therefore RWQCB made an interim exposure reduction plan, which would be in place until the full cost of remediation was secured. The interim plan was capping the site with clay (Newman, 2004).

In October 1981 CNA gathered with other communities around the state that were suffering from hazardous waste facilities to create Communities Against Toxics Wastes in Landfills. It lobbied in Sacramento to make state Superfund Bill a law. With this, hazardous waste sites that were not included in the federal Superfund were also able to receive funding. In the same year, Stringfellow was selected as top priority in California in the National Priority List of the federal Superfund (Newman, 2004).

The clay cap construction began in 1982. Huge amounts of dust blew around the pits, which made the community concerned about the safety of the workers on site. They asked RWQCB if AQMD could monitor the air quality, but it answered

that AQMD was not interested in monitoring. This was a complete lie, though – AQMD was not aware of the dust hazard, and when it insisted on monitoring the site, the Board denied its access to it (Newman, 2004).

The interim plan revealed numerous issues. First, an underground stream was found, which indicated that almost ten times more toxic chemicals might have spilled from the pit than originally estimated, and the stream transported chemicals at least 1000 feet from the canyon. The plan also revealed that the community had to fight even more to have its neighborhood cleaned up. When the interim remediation was completed in August 1982, RWQCB announced that this would be the final cleanup – it insisted that EPA would no longer fund the project unless they made the clay cap the final remediation (Newman, 2004).

CNA could no longer trust RWQCB. It campaigned to have the Department of Health Services (DHS) become the lead agency of the site. Unfortunately, this did not make the fight for a clean environment much easier. When the clay cap began falling apart during the heavy rain, residents reported this to DHS but the agency did not inspect the site. Residents went to the site, watching white foam ooze out of the cap. When State Senator Presley held a meeting to determine what was actually happening to the site, DHS was finally convinced that the cap was falling apart. The EPA Pacific Strike Team, an emergency response team, was sent to the site. It was only then that EPA conducted a full assessment of the site and a Remedial Investigation/Feasibility Study. Even after these results uncovered many threats that residents were exposed to, such as the carcinogenic chemicals in the underground water and the high rate of birth defects in babies born near the site compared to those

born in the rest of Riverside County, government officials kept underreporting the danger (Newman, 2004).

It was hard to trust any decision made by any of the agencies. In September 1983, the Stringfellow Advisory Committee (SAC) was formed to include residents in the decision-making process. CNA also acquired a Community Technical Advisor, paid for by Superfund, who could assist them with technical issues. When radiation 45 times above the federal drinking water level was detected in the water on site, CNA demanded bottled water to be delivered to their houses and campaigned to have residences with private water wells connected to a safe water system. When Governor George Deukmejian, who had promised to talk to residents about the water system, ignored them for several months, a few CNA members visited him to directly confront him. In October 1985, Governor Deukmejian finally agreed to pass Senate Bill 1891 with Senator Presley, which would provide 17 million dollars in funding to create a safe water system and allow residents who received bottled water to connect to it with no charge. In addition to this, CNA made the Stringfellow Information Center where residents can receive information on water testing and water delivery (Newman, 2004).

In 1986 CNA worked on the reauthorization of the federal Superfund to include the following provisions: Technical Assistance Grant Program (TAG), statutory rights for communities to take part in meetings and decision-making, and public participation methods such as the community advisory group. To have these new provisions authorized, CNA attracted attention by running the Super Drive for Superfund campaign. At the state level, CNA worked to pass Proposition 65, the Safe

Drinking Water and Toxic Enforcement Act of 1986. After a campaign around the state with celebrities, the proposition was passed in November (Newman, 2004).

A federal judge determined in August 1986 the 15 companies responsible for Stringfellow's contamination and required them to pay 40 million dollars for cleanup. It was finally time to plan the remediation process. The state proposed the following methods:

- Isolate or immobilize the waste so that the chemical no longer spreads
- Eliminate chemicals permanently
- Dewater or solidify the chemicals and contain them

Because none of these would remove the contaminants from the site, the community advocated for a complete cleanup using the soil-gas extraction method (Newman, 2004).

The federal jury also stated that in addition to the polluting companies, the State of California was responsible for the cost of remediation. This was because the state made the regulatory decision to allow the site to operate and issued a license. CNA attorney Lisa Foster said,

> The Stringfellow decision can be a potent new tool. The decision should force states to take licensing and regulatory decision more seriously. States will need to more closely scrutinize applicants and project designs and demand additional safety features because if something goes wrong, the state may well find itself defending against costly litigation – and paying enormous claims (Newman, 2004, p. 52)

Then, that October, residents were shocked to learn that government agencies and companies had been meeting secretly to discuss plans on doing another capping instead of cleanup. Outraged residents decided to attract attention from media again by awarding "Polluter of the Month Award" to companies (Newman, 2004).

When another rainstorm hit the pits in March 1990 and toxic soil flooded the community, residents and government officials were reminded of the danger of an incomplete cleanup. Finally on September 30, 1990, the Operable Unit Record of Decision (ROD) was signed, allowing agencies to begin soil-gas extraction, install community groundwater extraction system, and dewater the site (Newman, 2004).

Even after the ROD was signed, CNA had to be cautious. Inspecting the remediation work was essential to make sure that the work was carried out well. Pyrite Canyon Group, one of the contractors working on the extraction wells, left the truck holding the extracted contaminated water unattended during Thanksgiving. The truck overflowed, spilling contaminated water in the community. This led to several animal deaths. Congressman George Brown Jr. expressed his concerns to the new EPA Superfund Administrator, Don Clay: "I do not believe an effective system is in place to adequately manage even such minor emergencies" (Newman, 2004, p. 56). He suggested that some safety steps should be implemented to protect residents; these included developing a better reporting system that residents can use to report any hazardous activities, informing them about potential dangers, and developing a safety plan. He and CNA also asked EPA to oversee remediation, as the state, which was serving as the lead agency at that time, was one of the parties responsible for the

contamination. Unfortunately EPA did not agree to take on this role (Newman, 2004).

On October 25, 1992, 4000 residents filed lawsuits against 14 companies, the county, and the state for mismanaging the site and putting residents' health in danger (Newman, 2004). Plaintiffs also created the Plaintiff's Steering Committee that "[served] as a liaison between them and their attorneys" and monitored the progress of the lawsuit to make sure that they were not steering towards the government agencies' side (Sarathy, 2011). The lawsuit settled in early 1995 for 114 million dollars. One of the major victories for the residents was having DTSC create a Stringfellow Section within the department so that staffs working in this section could be dedicated to this case (Newman 2004).

When the community began discussing final cleanup procedures with the state, they addressed some concerns to the DTSC Deputy Director Paul Blais to be taken into account:

- Community security: The community asked for flood control and water filters in schools to reduce exposure to the chemicals as much as possible. They also requested the creation of a community park to reduce the stigma attached to the community.
- Stable funding mechanism: They wanted a funding source that was strictly dedicated to the remediation of Stringfellow that would not be affected by decisions made by future elected officials.
- Acceptable remedy: They were especially concerned of the volatile organic compounds (VOC) that can travel more easily, and thus wanted VOCs to be cleaned up more carefully.

- Institutional memory: For the long-term success of the site, the community felt the need to archive this long fight in the Stringfellow Museum.
- Community participation: Because the community's victory would not have been possible without community participation, they requested funding for community groups like CNA.

The community park called the Glen Avon Heritage Park and the Stringfellow Archives/Museum were established in 2000 and 2001 respectively. The State of California also declared to be 100 per cent responsible for the remediation and operation of the site. The complete remediation of the site is estimated to take 300 to 400 years, totaling $700 million. In summary, residents of Glen Avon used tactics such as directly confronting officials, lobbying, collaborating with other organizations, attracting media attention through campaigns, improving access to information, and creating groups that would enhance community involvement. Although the community will have to continue fighting to have a clean neighborhood, they have made significant changes to public policy and have moved agencies to take more responsible actions (Newman, 2004).

2. Price Pfister

Price Pfister was a major plumbing supply maker in Pacoima in the San Fernando Valley. Pacoima is a low-income minority town with 83 per cent of its population being Hispanic, and is surrounded by many polluting sources like landfills, freeways, small commuter plane airport, and more than 300 industrial facilities (EPA, 2015). The Price Pfister plant was built in 1960 and had been a leading faucet maker

in the nation. However, California's attorney general filed a lawsuit against Price Pfister and several other faucet makers for producing faucets that leach too much lead into the water in 1992 (Lee, February 9 1993). Price Pfister used the sand casting production method, which used lead to lower the melting point of brass; because of this, its faucets contained two times more lead than other companies' faucets (Lee, February 9 1993). California Proposition 65 of 1986 prohibits the leaching of certain chemicals into drinking water. Price Pfister settled the lawsuit for $2.4 million in January 1996. It also agreed to reduce the amount of lead in the faucet, but this required a large amount of money (Adamson, November 22 1996).

Price Pfister closed its Pacoima plant in January 1997 to move its manufacturing plant to Mexicali where regulations were more lenient. The company left heavily contaminated soil on the site, though, and remediation was necessary before redeveloping the land. Some of the contaminants were metals like lead, zinc, and chromium, volatile organic chemicals (VOCs) like PCE and TCE, and petroleum hydrocarbon. The Regional Water Quality Control Board (RWQCB) and DTSC supervised the cleanup and required soil excavation, off-site disposal, and soil vapor extraction (Community Redevelopment Agency & Community Development Department, 2008).

Jane Williams, the Director of California Communities Against Toxics, stated that the remediation of this site was done very safely with much community participation. She worked with DTSC to develop a health and safety plan that prohibits the stockpiling of contaminated material and requires washing the trucks that carry contaminated material before they leave the site. In addition to this,

Williams put a banner in the community with the AQMD regional inspector's phone number. If community members saw any dust leaving the site, they would call the inspector for him to check immediately. She also worked with the mothers living in the neighborhood; she gave video cameras to them so that they could film whenever the contractors were not following the rule. "These are all measures that force the contractor and facility to stay within the parameters that you want them to stay in," Williams said (J. Williams, personal communication, October 29 2015).

Not only remediation but redevelopment of this site was extremely successful too, thanks to community participation. The Community Redevelopment Agency of the City of Los Angeles (CRA) started the Community Benefits Agreement (CBA) project in 2007 to enhance community participation. This project was intended to brainstorm a strategy to inform residents about the redevelopment plan and gain insight on the method of redevelopment. Pacoima CBA Partners conducted a survey to understand the community members' needs; this revealed that job-related benefits were considered the most important. Such heavy community participation helped create solidarity among residents to support this redevelopment plan ("Plaza Pacoima Commercial Development," 2008).

Pacoima Beautiful was one of the community organizations heavily involved in redevelopment. The bilingual, multicultural group was founded in 1997 by five mothers to empower the community. It received many grants such as the EJ Collaborative Problem Solving grant from EPA in 2004, Level 1 Community Action for a Renewed Environment Grant (CARE) in 2006, and Level 2 CARE grant in 2007 to reduce small pollution sources and diesel emission from trucks and school buses.

Pacoima Beautiful conducted environmental site assessments and met with elected officials and regulators to discuss how the situation can be improved. Members were also trained as health educators to educate businesses in the area on how to reduce toxic emission and risk, and ultimately improve their operation (EPA, 2015).

Plaza Pacoima, a 209,000 square foot LEED Certified building, stands on the former Price Pfister plant. CRA calls this project one of the most successful. Because the survey conducted by Pacoima CBA Partners showed that job-related benefits were considered the most important, the site developer promised to hire local residents in the new Costco and Best Buy situated in the Plaza (Public Council Law Center, 2012). The community's heavy involvement in remediation and redevelopment was what led this project to success.

3. Exide Frisco Plant

The Stringfellow Acid Pit and Price Pfister facility both provide examples of tools that community members can use to ensure environmental justice during the remediation process. Thanks to these, government agencies have paid more attention to these issues and worked to solve the problem as soon as possible. Unfortunately, Exide's Frisco Plant has not been as successful as the other two cases discussed above. Remediation is still being planned on site and in the neighborhood. Why is Frisco taking such a long time to be cleaned up?

The lead acid recycling plant opened in 1964 and processed lead batteries and other materials containing lead into other products. During the process, a stony waste matter called slag, which was disposed of in the on-site landfill; battery case

chips, disposed of off-site; and waste acid, treated through the on-site wastewater treatment facility were produced (Texas Commission on Environmental Quality, 2014). The facility was sited for violating the federal air quality standards and contaminating the surrounding area numerous times. Exide had been working hard to comply with the standards by planning to invest $20 million in improvement, but the upgrades were never completed (Wigglesworth, November 30 2012). When EPA lowered the lead emission standard from 1.5μg/m^3 to 0.15μg/m^3 in 2012, Exide decided to simply cease its operations (Wigglesworth, August 1 2014).

Under the oversight of the Texas Commission on Environmental Quality (TCEQ), Exide and the city agreed on a cleanup plan that would start the process within 18 months of closure. The plan was to have two remediation activities carried out at once: one for the Former Operating Plant and one for the Undeveloped Buffer Property, which is a 170-acre property that surrounds the Former Operating Plant. Exide agreed to sell this Undeveloped Buffer Property to Community Development Corporation (CDC) and Economic Development Corporation (EDC) for $45 million once the property was cleaned up (Wigglesworth, November 30 2012). Exide would retain ownership of the rest of the land. Of the $45 million that Exide would gain from selling the land, the city would set aside $5 million for Exide to use for remediation. The city would also pay $1.5 million for clean up, and any costs that could not be covered by these two sources would be split evenly between Exide and the city (Wigglesworth, April 25 2014).

First, Exide was required to submit the Affected Property Assessment Report (APAR) that discussed the chemicals present in the area, their sources,

whether they are mobile, and how they might affect humans and/or the environment. An APAR had to be submitted for the Former Operating Plant and the Undeveloped Buffer Property. Once the APAR was submitted for review and approval by TCEQ, a Response Action Plan (RAP) for the two different properties were developed. This presented the proposed remediation plans. Once the remediation was completed, the Response Action Completion Report would be submitted for both properties that document compliance with the RAP (Exide Technologies, 2014).

Although both APAR and RAP have already been submitted in July 2013 (revised in May 2014) and April 2014 respectively, the project is progressing extremely slowly. Residents and community activists have fought to have the hazardous waste hauled off-site, but city officials denied this saying that it would cost too much money and may even cause greater contamination risk during the transportation. Therefore the on-site landfill, which was designated as a "corrective action management unit," is planned to accept waste produced during the cleanup process and be capped and monitored after remediation is complete. Exide proposed to install a six-feet cap that would be made of clay liners, clean fill, and topsoil that would be vegetated to prevent erosion. A system to collect leachate would also be installed. Exide is required to set aside $1.8 million for the landfill closure and post-closure monitoring (Wigglesworth, September 6 2015).

The Exide facility in Frisco is not going through the same kind of a remediation process as is scheduled for the facility in Vernon, California. Williams, who also works on the Frisco facility, said that Exide will not pay for a full cleanup if they are not required to do so. She said, "I don't think the city of Frisco understands

that a buffer zone is not going to help you… I don't think they're going to understand that as that facility sits there, as that land sits there, it's emitting lead. They just fundamentally don't understand that the threat is still there" (Jane Williams, personal communication, October 29 2015). Similarly, the community organization Downwinders at Risk have been frustrated by how unresponsive the city has been:

> Frisco City officials handed the job over to Exide and expected the same company that ran an outlaw smelter operation to provide an excellent clean-up of their own mess. They had faith! The City is handing over the toxicology and assessment to the state and EPA. They have faith! They're handing the decision about what to do with the waste in Frisco to their lawyers, who are recommending the city host a toxic waste landfill by Stewart Creek in front of the new Grand Park. They have faith! What they don't have is any faith in their own citizenry. After 2 years there's still no transparent, civic dialog on the fate of the thousands of tons of lead waste that remains in the heart of the central business district (Schermbeck, 2014).

The director of Downwinders, Jim Schermbeck, says that the city needs to start taking charge of the clean up instead of trusting others to do it. Instead of funding the on-site landfill, the city should allocate that money to permanent cleanup.

Besides the fact that it is extremely expensive to conduct a permanent cleanup (about $15 million for containment and $144 million for permanent cleanup), another reason why the city is not pushing for permanent cleanup may be because the community is not as active as other sites facing similar issues. Colette McCaden, a member of another community organization called Frisco Unleaded, said in an

interview: “The vast majority of people in Frisco think this is it, the plant is closing, and that’s that… I don’t think that they understand that there’s still significant efforts that need to be utilized to enforce the maximum cleanup possible” (Wigglesworth, 2012). This case also seems to be losing media attention: the number of articles written on this facility in The Dallas Morning News has been dwindling since 2013. The fact that this plant is located in Texas, where environmental policies are less robust than California’s, may also be a reason why Frisco is not going through a complete remediation. However, the lack of media attention and awareness about the environmental issues in Frisco are allowing government officials to choose cheaper and easier cleanup methods.

4. What past cases have taught us

Stringfellow Acid Pits, Price Pfister, and the Exide plant in Frisco have all been through similar problems as what Exide’s Vernon Plant has been experiencing: unresponsive government agency, lack of transparency in the decision-making process, and slow progress. Fortunately, these three cases also provide positive examples of what community members and organizations can and/or should do to ensure that remediation is carried out in a safe and timely manner.

IV. What Should Eastern Los Angeles Do?

1. Proposed Remediation Plan

At the Advisory Group Meeting on October 28, 2015, DTSC presented three remediation options to the Advisory Group. The first option was to sample houses in the Preliminary Area of Investigation on a first come first served basis.

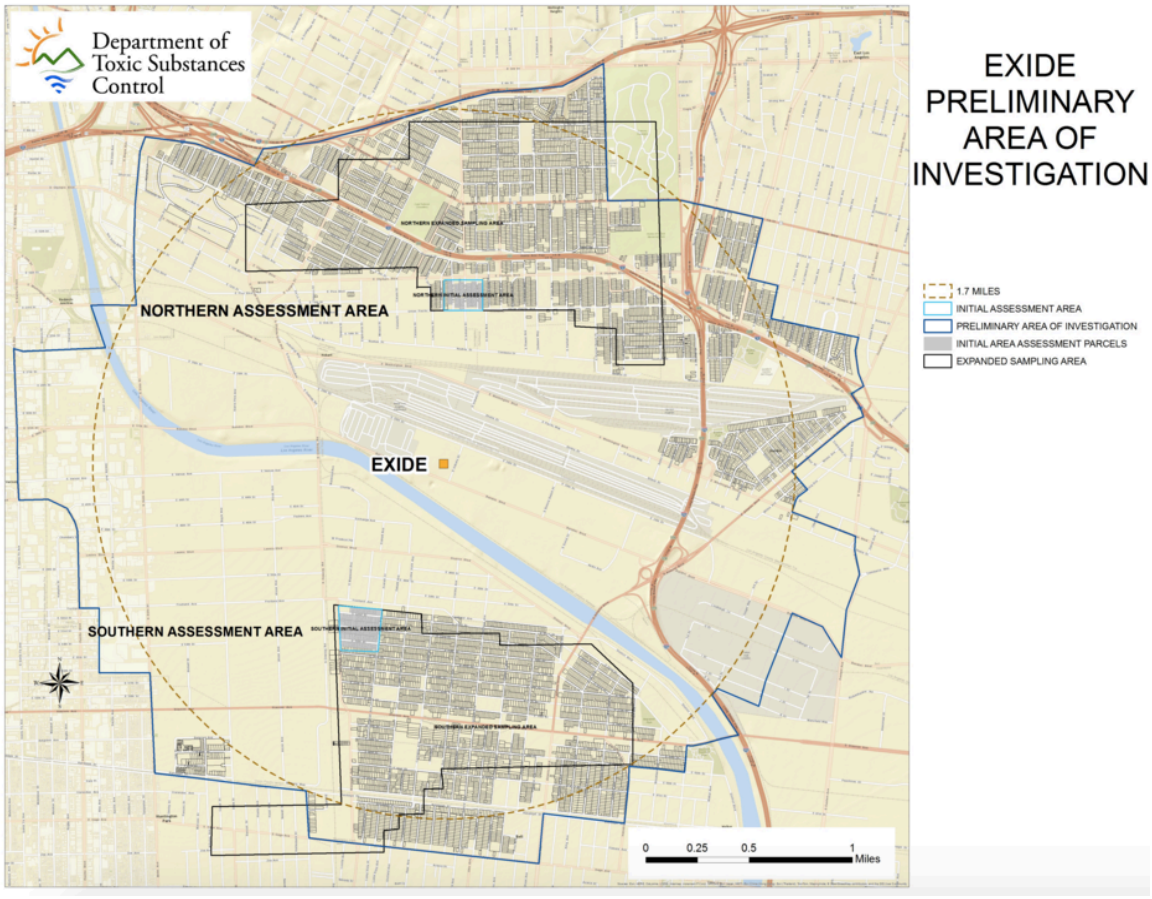

Figure 1: The brown circle shows the distance lead may have traveled from the Exide plant (1.7 miles). The dark blue shape around the circle is the Preliminary Area of Investigation.
Reprinted from Exide Advisory Group in *Department of Toxic Substances Control*, October 28, 2015. Retrieved 10 Dec 2015 from https://www.dtsc.ca.gov/HazardousWaste/Projects/upload/DRAFT-EXIDE-OPTION-1E.JPG

The second option was identifying several Focused Areas based on the expected contamination and sampling houses only in those areas first. The third option, which DTSC as well as the majority of the public were in favor of, was to combine option

one and two: the houses in the Focused Areas would be sampled first, but houses that request sampling within the Preliminary Area of Investigation would also be sampled.

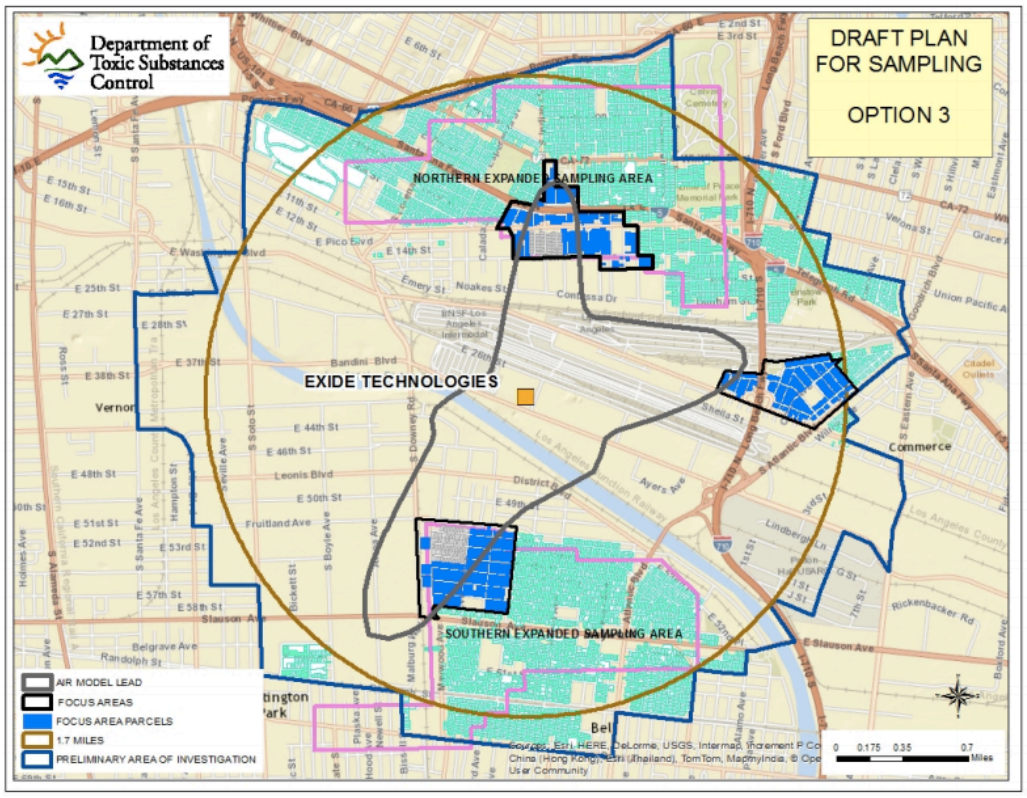

Figure 2: The third sampling option that DTSC suggested would be sampling and cleaning the houses within the Focused Areas (colored in dark blue) first and simultaneously working on houses that request sampling within the Preliminary Area of Investigation (outlined in dark blue line). Reprinted from Draft Sampling and Cleanup Program Fiscal Year 15/16 in *Department of Toxic Substances Control,* October 28, 2015. Retrieved 10 Dec 2015 from https://www.dtsc.ca.gov/HazardousWaste/Projects/upload/2015-10-28_Exide_AG-Meeting-XRF-CA-rdl-10-27a-AM-BL.pdf

In addition, if the blood testing shows that a child who lives within the Preliminary Area of Investigation has high lead level in their bloodstream, that property will be sampled immediately and cleaned up if necessary.

A device called the X-Ray Fluorescence Analyzer (XRF) is being used to sample the soil. Instead of having to take the soil sample to a laboratory and wait a few weeks for the results, XRF can analyze the soil content immediately and give results within a few minutes. Not only does it detect multiple kinds of metals, but it

also does not require any soil disturbance for sampling and thus is very safe and easy to use. With this device, properties can be sampled more rapidly.

DTSC must collect Sampling Access Agreements and Cleanup Access Agreements from properties in order to test and remediate the land. In the Initial Assessment Area (Figure 1), of the 216 houses within that area 195 houses have been sampled and 186 have been cleaned up. The remaining 33 residences were unresponsive, denied access, or had low levels of lead and did not require cleanup. In the Expanded Sampling Area (Figure 1) 146 properties were sampled and 41 of them were identified as Priority 1 Properties. This means their soil had lead concentration greater than 1000 ppm. Houses within the Preliminary Area of Investigation have been contacted, and 50 of them have already signed the Access Agreements. These houses will be cleaned up during the Comprehensive Cleanup, which is planned to take place during the 2016-17 fiscal year (DTSC, 2015).

DTSC is paying for this cleanup with the $7 million that it received from the Governor's Office and Legislature specifically for sampling more properties and cleaning some of them. The cost of sampling a property is about $1,000 to $1,200, and cleaning one could cost as much as $50,000 (Exide Advisory Group Meeting, October 28, 2015; S. Cromie, personal communication, October 26 2015). Some Advisory Group members showed concern about the possibility of running out of funding before the end of the fiscal year (which ends in June), but Lee seemed confident that $7 million would be enough, at least for now.

2. Environmental Justice Issues in Remediation

Although various environmental justice issues were raised during the Advisory Meeting and the interviews that I conducted with several environmental activists, they all had one key underlying concern: neighbors' fears of increased exposure to toxins. The two main ways exposure can increase are remediation taking a long time and thus lead being present in the community for an extended period of time, and workers and residents not being protected properly during cleanup.

A. Slow remediation process

Slow remediation means more people will be exposed to lead. Because lead is not biodegradable and thus needs to be dug out from the area to be removed, time will not solve problems but only increase them. Although the XRF has made sampling time significantly shorter than before, multiple crews will need to be in the community to sample and clean residences to complete remediation as quickly as possible.

The remediation process can be delayed due to lack of funding too. Many Advisory Group members were worried that DTSC would run out of money before the end of the fiscal year, which would halt cleanup procedures. Unless DTSC can find another source of funding, this would lead to remediation taking longer than originally planned. Williams said: "It's half a billion dollar problem, it's going to take 25 years for Exide to at least get that money, and meanwhile we're going to have a whole generation of children in central LA that grow up. Exposed to lead. And that's not an acceptable outcome" (J. Williams, personal communication, October 29 2015).

B. Lack of protection

Advisory Group members showed much frustration about the lack of protection for the workers in the residential areas cleaning up and the residents living there. Teresa Marcus from Mothers of East Los Angeles expressed her anger, saying that nearby residents and pedestrians were not informed of the risks associated with being close to the remediation site. She said, "[remediation] has to be in a way that [is] protecting the people and the community, not [adding] more problems to it" (Exide Advisory Group Meeting, October 28 2015). Another member asked for a chemical engineer in the Advisory Group, saying that "it is ridiculous that residents are allowed to stay on the properties while cleanup is being done" (Exide Advisory Group Meeting, October 28 2015). Robert Cabrales from CBE also stated that the main environmental justice issue associated with remediation is that community members are still living in the area while cleanup is being carried out (R. Cabrales, personal communication, November 6 2015). Williams was especially frustrated about DTSC's insensitivity towards protecting residents. Workers cleaning up the area had stockpiled contaminated soil without covering it with a tarp, allowing dust to blow into surrounding areas such as the schoolyard. Additionally, trucks carrying the contaminated soil had left the community without properly washing off the lead. The Resource Conservation and Recovery Act (RCRA) prohibits stockpiling and tracking out contaminants; yet, this issue had not been solved (J. Williams, personal communication, October 29 2015).

Marcus and Williams have also been exasperated about the lack of protection for the workers cleaning up the residential area. "Workers are still not

wearing Tyvek suits… They are taking these contaminations from the sites to their homes" (J. Williams, personal communication, October 29 2015). Peter Ruttan, a DTSC scientist who gave a presentation on soil sampling and cleanup at the Advisory Group meeting on October 28, 2015, said that there is no need for the workers to be wearing protective clothing because the air qualities around the properties were monitored during remediation and lead levels have not exceeded the National Air Quality Standards. They also have a decontamination procedure before leaving the site and community, such as brushing off and cleaning shoes. Barbara Lee reinforced that DTSC has an industrial hygienist on staff who is in charge of employees' safety.

Neither of the two activists was satisfied with this answer, though. Williams explained a conversation she had with Rizgar Ghazi, the remediation supervisor working on the Exide case. "I said to him, 'Rizgar, when you go home from work, do you take your clothes off before you go home?' He listened to me like I'm crazy. 'No, well neither do the workers.' They don't take their clothes off, and they've been working in contaminated lead all day" (J. Williams, personal communication, October 29 2015). Along with Mark Lopez from East Yard Communities for Environmental Justice, the two stressed the need for a third-party oversight. This third party would be at the site overseeing the work that is being carried out and will also be empowered to issue fines. Although DTSC has their inspectors observing the work being done, Williams said it is necessary to have a third party as "the culture of [DTSC] is to allow material to leave their site" (J. Williams, personal communication, October 29 2015).

3. Solutions to Environmental Injustice in Remediation

The past cases that dealt with remediation discussed in the previous chapter have provided tools and ideas on what the communities surrounding Exide can do to ensure that remediation is carried out in a fair way. How can some of these tools be used to solve the main environmental justice issue, increased exposure to toxins?

One way to quicken the sampling process is by having community members do part of the soil sampling. During the Advisory Group meeting, many members including Mark Lopez mentioned the possibility of training community members to sample soil (Exide Advisory Group Meeting, October 28 2015). Jane Williams, Director of California Communities Against Toxics, also approved of this idea saying that it would not only make the sampling process faster, but also empower the community through training and education (J. Williams, personal communication, October 29 2015). Members of Pacoima Beautiful were also trained as health educators so that they could educate businesses on how to act in an environmentally friendly and just manner. Such direct engagement with the project gives residents the chance to understand the risks that they are facing, provide some solutions, and acquire new skills.

To secure adequate funding so that remediation will not be delayed, communities should attract media attention. When community members near the Stringfellow Acid Pits had the same fear about lack of funding, they worked to keep Stringfellow in the news. By attracting media attention, they put pressure on government agencies to keep their promise of providing money for cleanup. This is also a useful way to accelerate remediation as much as possible and force agencies to

act responsibly. One of the reasons why Frisco's Exide Plant is not going through permanent cleanup and is progressing slowly is because there is no media attention and the public is becoming less aware of the issue. Collaborating with other environmental justice organizations, like Stringfellow's CNA did, may be one way of doing this. Not only will members be able to exchange knowledge, but also campaigns and lobbies can become more impactful, putting pressure on government agencies.

As some of the Advisory Group members suggested, having a third party oversight is one way people can make sure that workers and residents are not being increasingly exposed to toxics. Residents can take on this role as a watchdog, too. In both the Stringfellow Acid Pits and the Price Pfister cases, community members played a great role in overseeing the decision-making progress and the remediation process. When 4000 Glen Avon residents filed lawsuits against the polluters and the state, the Plaintiff's Steering Committee made sure that the decisions being made were not unfairly favoring the government agencies' opinions. When Pyrite Canyon Group, one of the contractors working on the extraction wells at Stringfellow, spilled gallons of toxic chemicals in the community, Congressman George Brown Jr. suggested developing a better reporting system that residents could use. The Price Pfister case was very successful in developing this reporting system that led to a cleaner and safer remediation. Residents were able to call the regional AQMD inspector if any contaminants were leaving the site and have him examine the site immediately. They also had video cameras to film trucks that were not following the rules. Because residents lived in the community and were able to watch the cleanup

process almost all the time, they were successful in forcing the contractors to follow the rules and carry out a safe remediation.

Most importantly, active community participation is indispensable to not only solve the environmental justice issue associated with remediation, but also prevent further injustices from happening in eastern Los Angeles. Although cleanup of the Stringfellow Acid Pits has not finished yet, Concerned Neighbors in Action (CNA) was able to change policies and gain a park and museum because it was very active, fighting tirelessly for justice. Mothers of Eastern Los Angeles (MELA) prevented polluting facilities from being built in its neighborhood thanks to community activism. Residents near Price Pfister actively engaged in overseeing the contractors' work to make sure that they were not violating regulations. In contrast, the case of the Exide plant in Frisco tells us that it is unlikely that remediation will happen in a safe, timely manner if the community loses interest in achieving a common goal.

The success of CNA and MELA follows some of the rules that Saul Alinsky presents in his book, *Rules for Radicals* (1971). He wrote this book as well as *Reveille for Radicals* (1946) to guide citizens who seek social change to success (Perazzo, 2008). According to him, radicals are those whose "common good is the greatest personal value" and believe in "real equality regardless of race, color, or creed" (Alinsky, 1946, p. 15; p. 17). Of the twelve rules, Rules 7 and 8 fit the tactics that CNA and MELA used:

> "The seventh rule: A tactic that drags too long becomes a drag. Man can sustain militant interest in any issue for only a limited time, after which it

> becomes a ritualistic commitment, like going to church on Sunday mornings…
>
> The eighth rule: Keep the pressure on, with different tactics and actions, and utilize all events of the period for your purpose" (Alinsky, 1971, p. 129).

In other words, communities should continuously pressure the opponent by changing strategies once in a while. CNA and MELA both followed this strategy closely: both organizations lobbied in Sacramento to have their voices heard, CNA attracted media attention with the "Polluter of the Month Award," and MELA collected four thousand signatures from community members. They never stuck to one method, but mixed several to appeal to a wider population and to constantly draw attention.

Studies discussed in the first chapter have also shown that lack of community activism can lead to environmental injustice. Hamilton (1993, 1995) and Bullard (2000) both say that hazardous facilities take the "path of least resistance" and situate themselves in communities that have less capacity to mobilize and oppose polluting businesses (Bullard, 2000, p. 3). Therefore it is essential for communities to actively participate in the decision-making and development processes of a project to show polluters and government agencies that they indeed do have the power and ability to oppose them. Ferris (1993) also discuss how the communities' lack of resources to serve as a government watchdog can lead to inefficient and ineffective remediation. Therefore communities should actively seek resources and support from other experienced organizations that have knowledge on ways to fight environmental injustice. Williams, Cabrales, and Lopez are all great advocates for the communities

surrounding Exide. Williams stated firmly that she will not allow DTSC to take a long time to remediate: "We are certainly committed – there is a core group of us and we are certainly committed to not having [remediation] take a long time, and finding ways to get around the existing recalcitrance that you clearly see from [DTSC]" (J. Williams, personal communication, October 29 2015).

Communities can also gain more power by forming a Community Advisory Group (CAG). If the community has a strong interest in safe and quick remediation and has a leader who can commit to this remediation project, forming a CAG can be very powerful (S. Cromie, personal communication, October 26 2015). A CAG is made of community members and its purpose is to ensure that residents' concerns and needs are taken into account during the decision-making process (EPA, 2015). Although CAGs can force agencies to listen to the communities' voices, they are not always the best solution. Forming another group could complicate the process even more as well as require members to invest more time in the project than before (R. Brausch, letter to C. Walsh, March 19 2010). CAG would be a powerful tool if residents could reach a consensus to work towards a safe and quick cleanup.

MELA, Stringfellow, Price Pfister, and Exide's Frisco plant have shown that active communities do make a difference; they can stop hazardous facilities from being built in the area and make sure that remediation happens in a fair way. Alinksy's seventh and eighth rules and the tools used in past cases guide the residents of eastern Los Angeles towards successful remediation and a cleaner environment.

Conclusion

There is hope that DTSC will commit to cleaning up the community as quickly as possible. Cromie and Cabrales said that DTSC knows that it has made a mistake, exposing many residents to toxic substances (S. Cromie, personal communication, October 26 2015; R. Cabrales, personal communication, November 6 2015). It is rare for DTSC to work so closely with the Advisory Group, trying to incorporate all of their concerns (S. Cromie, personal communication, October 26 2015); this shows its commitment to improve their actions and carry out a remediation that the community would be happy with. According to Cromie, DTSC has added third party oversight in their Closure Plan so that an environmental specialist would be watching the remediation processes and making sure that rules are being followed (S. Cromie, personal communication, December 2 2015). DTSC is also solving the issue of stockpiling by only allowing workers to stockpile contaminated soil when dirt is being actively dug up; the pile will be covered with tarp as soon as digging stops (S. Cromie, personal communication, December 2 2015).

However, the long fight that residents of eastern Los Angeles have had with government agencies to shut Exide down and past cases such as the Stringfellow Acid Pits teach us that they cannot rest assured just yet: Communities will have to constantly make sure that decisions are made transparently, contractors are following the rules, and exposure to toxic substances are minimized. While there are various tools that communities can use to achieve their goal, I argue that strong community activism and involvement – especially those that follow Saul Alinsky's seventh and eighth rules – are the most potent weapons. Past case studies have shown that

communities that organized themselves and tirelessly fought using various tactics have been the most successful.

Perhaps the first step that should be taken is creating a strong community organization across all the communities affected in eastern Los Angeles. It should be led by members who have much knowledge on the community and also by those who have experience in successfully carrying out environmental justice movements, like Teresa Marcus from MELA. Instead of receiving funding from DTSC, the group should receive grants from EPA or other federal organizations like Pacoima Beautiful did, so that it can operate independently from DTSC. This money would be used to train members on how to use XRFs, run campaigns to attract media attention, and travel to other communities to collaborate. Like CNA from Glen Avon, members will need to be creative to come up with different tactics to follow Alinsky's rules. Therefore it is important to work with other organizations to learn what methods are available and make decisions transparently so that the public can provide input. With a strong, active community organization, eastern Los Angeles can obtain a cleaner environment and become a role model for future organizations.

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